

REMARKS

This Amendment is filed in response to the Office Action mailed Aug. 25th, 2005.
All objections and rejections are respectfully traversed.

Claims 6-9, 11-17, 19-20, 23-50 are now pending in the case.

Claims 6, 9, 11-15, 17, 20, 23, 24, and 27 have been amended to better claim the invention.

Claims 1-5, 10, 18, and 21-22 have been cancelled without prejudice.

New claims 42-50 have been added.

Claim Rejections - 35 U.S.C. §102

At paragraphs 2-4 of the Office Action, claims 1-7 and 27 were rejected under 35 U.S.C. §102(e) as obvious in view of Brunelle et al., U.S. Patent No. 6,654,902, issued on Nov 25th, 2003 (hereinafter Brunelle).

Applicant's claim 6, representative in part of the other rejected claims, sets forth:

6. A method of claiming ownership of a disk by a network device in a network storage system comprising the steps of:

writing ownership information to a predetermined area of the disk; and

setting a small computer system interface persistent reservation tag to a state of network device ownership.

Brunelle discloses a way of using standard small computer system interface (SCSI) persistent reservations with I/O barriers. The American National Standards Institute (ANSI) has standardized a number of SCSI Persistent Reservation commands,

such as *Persistent Reserve Out*. See col. 1, lines 28-41. Brunelle describes issuing two of these commands to assign ownership to storage devices. See col. 5, lines 60-67. The first *Persistent Reserve Out* command includes a key describing a particular node owning the device. See col. 6, lines 38-48. The second *Persistent Reserve Out* command includes a parameter specifying an access type, such as “write exclusive read only.” See col. 5, lines 65-67 and col. 6, lines 48-54.

The Applicant notes that the relevant portions of Brunelle largely restate material described in *SCSI Primary Commands – 3*, which the Applicant has incorporated by reference into the specification at page 8, lines 6-9. Use of such commands is only one aspect of the Applicant’s claims, and as such, a reference that only describes these commands cannot possibly show the other aspects of the Applicant’s claims.

The Applicant respectfully urges that Brunelle is silent concerning the Applicant’s claimed “*writing ownership information to a predetermined area of the disk*.”

Brunelle simply describes using SCSI persistent reservation commands to set a SCSI persistent reservation, and lacks any suggestion of *writing ownership information to a predetermined area of the disk* in addition to using SCSI persistent reservations. While Brunelle is silent on how the SCSI persistent reservations are stored by a disk, it is well known to those of ordinary skill in the art that SCSI persistent reservations are stored in firmware rather than at predetermined area of the disk media. They are generally stored in firmware since a reservation may be needed prior to a disk being able to spin up and be ready for access. Therefore, Brubelle’s disclosure of SCSI persistent reservations does not anticipate the Applicant’s claims reciting a SCSI persistent reservation tag and *writing ownership information to a predetermined area of the disk*.

Further, the use of only SCSI persistent reservations suffers from known shortcomings that the Applicant's invention overcomes. It is well known by those of ordinary skill in the art that SCSI persistent reservations may be preempted by certain commands, which will cause ownership information derived from the persistent reservation information to be lost. Accordingly, the Applicant addresses this issue and teaches a more robust system that writes *ownership information to a predetermined area of the disk* so it can be preserved.

Accordingly, the Applicant respectfully urges that Brunelle is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed novel "*writing ownership information to a predetermined area of the disk*."

Claim Rejections - 35 U.S.C. §103

At paragraph 6 of the Office Action, claims 9-20 and 22-24 were rejected under 35 U.S.C. §103(a) as obvious over Brunelle in view of Carlson et al., U.S. Patent Application Publication No. 2003/0093501, published on May 15th, 2001 (hereinafter Carlson).

The Applicant notes Carlson was filed on Oct 18th, 2001, approximately 2 month before the Applicant's filing date. While the Applicant does not admit Carlson has actual prior art status, even assuming arguendo Carlson is prior art, the reference would not anticipate or make obvious the Applicant's claims as explained below.

Applicant's claim 9, representative in part of the other rejected claims, sets forth:

9. A network storage system comprising:
 - a plurality of network devices;
 - one or more switches, each network device connected to at least one of the one or more switch; and
 - a plurality of disks having *a first ownership attribute written to a predetermined area of the disk* and a second ownership attribute in the

form of a small computer system interface persistent reservation tag, each disk connected to at least one of the plurality of switches.

Carlson discloses a Storage Area Network (SAN) where storage devices are interconnected by switches to form a fabric. *See* paragraph 0039.

The Applicant respectfully urges that both Brunelle and Carlson are silent concerning the Applicant's claimed "*a first ownership attribute written to a predetermined area of the disk.*"

As discussed above, Brunelle simply describes SCSI persistent reservations, and lacks any suggestion of *a first ownership attribute written to a predetermined area of the disk*, in addition to using a SCSI persistent reservation. Carlson, similarly lacks any suggestion of this feature as it merely describes a storage network architecture, and lacks any mention of ownership.

Accordingly, the Applicant respectfully urges that the combination of Brunelle and Carlson is legally insufficient to make obvious the present claims under 35 U.S.C. §103 because of the absence of the Applicant's claimed novel "*a first ownership attribute written to a predetermined area of the disk.*"

At paragraph 7 of the Office Action, claims 25 and 26 were rejected under 35 U.S.C. §103(a) as obvious in view of Brunelle, Carlson, and Jaskiewicz et al., U.S. Patent Application Publication No. 2003/0061491, filed Sept. 21st, 2001 (hereinafter "Jaskiewicz").

The Applicant notes that Jaskiewicz was filed on Sept 21st, 2001, less than one year before the Applicant's date of filing. While the Applicant does not admit that

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Jaskiewicz is entitled to actual prior art status relative to the Applicant's invention, even assuming arguendo that it is, the claimed invention is patentable over Jaskiewicz.

The Applicant notes that claims 25 and 26 are dependent claims that depend from independent claims that are believed to be allowable. Accordingly, claims 25 and 26 are also believed to be allowable.

In the event that the Examiner deems personal contact desirable in the disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-3078.

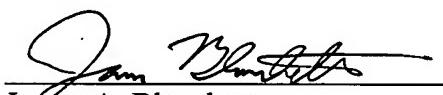
All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,


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